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IN THE

Supreme Court of the United States

OCTOBER TERM, 1960

NO. 698

[illegible] PRODUCTS CO., a corporation,

Petitioner,

vs.

[illegible] STEEL PRODUCTS CORPORATION,

Respondent.

Petition for a Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

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IN THE

Supreme Court of the United States

OCTOBER TERM, 1960

No. .....

SOUTHWEST PRODUCTS CO., a corporation,

Petitioner,

vs.

AETNA STEEL PRODUCTS CORPORATION,

Respondent.

Petition for a Writ of Certiorari to the United States Court of Appeals for the Ninth Circuit.

Petitioner prays that a Writ of Certiorari issue to review the judgment of the United States Court of Appeals for the Ninth Circuit entered in the above-entitled case on August 16, 1960.

Citations to Opinions Below.

The opinion of the Court of Appeals printed in Appendix A hereto, pages 1-26, is reported in 127 U. S. P. Q. 23, ... F. 2d.....,

Jurisdiction.

1. The judgment of the Court of Appeals for the Ninth Circuit was entered August 16, 1960 [R. 1502]. Rehearing was denied November 15, 1960 [R. 1503].

2. The jurisdiction of this Court is invoked under 28 U. S. C., Section 1254(1) to review the aforesaid judgment which reversed a judgment [R. 174] of the United States District Court for the Southern District of California, Central Division, holding Petitioner's patents valid and infringed by Respondents.

Questions Presented.

1. In cases involving patents for invention which have been held valid and infringed and detailed Findings of Fact on disputed issues have been entered in deciding the question of validity, is a reviewing court presented a question of fact, a question of law or a mixed question of fact and law?

2. Does the case of *Muncie Gear Co. v. Outboard Co.*, 315 U. S. 759, or *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U. S. 211, prohibit the amendment of a pending claim in a patent application to more particularly define a previously claimed element by adding a description of an inherent quality of such element?

3. Is the Rule of *Atlantic & Pacific Tea Co. v. Supermarket Corp.*, 340 U. S. 147 and kindred cases addressed to a combination of old elements applicable to method or process claims and, if so, are the requirements of this Rule satisfied by a showing that the process involving two new steps results in the creation of a new product? A contrary ruling would overrule *Expanded Metal Co. v. Bradford*, 214 U. S. 366.

4. Is a patent, like any other instrument, to be interpreted by its own terms, without resort to its file wrapper when the sole question is one of its validity.

particularly in view of Section 103 of the Patent Act of 1952, 35 U. S. C., Section 103, which requires not a piecemeal determination but a consideration of the "subject matter as a whole"?

Statutes and Rules Involved.

The statutory provisions involved are Sections 101, 102, 103 and 132 of the Patent Act of 1952; 35 U. S. C., Sections 101, 102, 103 and 132. They are printed in Appendix B, pages 27-33.

Statement.

Petitioner, Southwest Products Co., is the owner of United States Letters Patents Numbers 2,626,841 and 2,724,172. The first patent relates to a two-piece bearing and the second patent is for the process or method of manufacturing said bearing. Respondent is manufacturing bearings which are charged to and were found by the District Court to infringe the first of these patents and are charged to and were found to infringe the second of these patents in the process of manufacturing its bearings. With respect to the inventions involved the District Court after noting that the bearing was formed by coining or swaging a ring about a truncated ball to form a race which was thereafter released from its binding engagement with the ball by applying a mechanical force evenly around the circumference of the ring entered Finding 20 [R. 161] reading as follows:

> "XX. Self-aligning bearings produced in accordance with the Potter patents are used in aircraft to withstand both axial and radial loads and in some cases, to mount the engine on the aircraft

and, because of weight consideration, are required to carry extremely heavy and suddenly imposed loads. For this reason, there must be a uniform, intimate contact between substantially all of the entire available adjacent surfaces of the ball and its race so that the bearing will not fail under high or sudden loading or as a result of vibrational cycling or other conditions or any combination of them in the aircraft. To achieve such uniform intimate contact between substantially all of the entire available adjacent surfaces of the ball and its race, the patents in suit introduce the novel concept that in the manufacture of self-aligning bearings, the ball itself acts as a die member against which the outer race member, originally in the form of a sleeve, is coined, swedged or pressed, such that substantially all of the entire available adjacent surfaces of the ball and its formed race are in direct and intimate contact, as set forth in the claims of the '172 patent, to such an extent that the ball actually becomes 'frozen' in the race with substantially all of the entire available adjacent surfaces in binding engagement. Due to such binding, there is a condition of 'zero' clearance between the substantially all of the entire available adjacent surfaces of the ball and its race. The ball is thus held in binding engagement after the race forming operation by the stresses developed in the race as a result of its formation with the ball. Thus, another novel concept is that the pressures applied to the race member in its formation should be sufficiently large to develop such a stress pattern of such nature and intensity that substantially all of adjacent surfaces of the

ball and its race remain in direct and intimate engagement after release of this pressure.

"Another novel teaching of the Potter patents is thus that (236) the pressures applied to the race member in its formation be sufficiently large to develop such a uniform stress pattern throughout the formed race member that the formed race member does not spring back from the ball and provide a clearance after release of the pressure, but, on the other hand, according to the Potter invention, substantially all of the entire available adjacent surfaces between the ball and its formed race remain in direct and intimate engagement.

"Further, another novel teaching of the Potter patents is that the stress pattern developed in the race member for maintaining substantially all of the entire available adjacent surfaces in intimate and direct engagement should be sufficiently uniform throughout the entire body of the race member and not solely at one particular localized region, so that the same may be used to advantage, either in subsequently achieving a uniform clearance between the entire adjacent available surfaces of the ball and its formed race or in subsequently achieving a uniform preloaded condition. Because the stress pattern developed in the race member during the forming operation is substantially uniform, it is easily altered in a uniform manner by the application of mechanical force, such as a rolling force, to develop either a uniform clearance between the ball and its race member or a uniform preload condition.

"Another novel teaching of the Potter patents is that the mechanical force applied to the race member for purposes of altering uniformly the substantially uniform stress pattern in the race member is that such mechanical force be applied uniformly around the circumference of the formed race as, for example by rolling; otherwise, a uniform clearance and a uniform preload condition does not result. One of the surprising results of the Potter method is that the liberating mechanical force required to achieve the desired uniform clearance or desired uniform preload condition is very small in comparison to the large forces required (237) in the forming of a race member in uniform binding engagement with the ball; and, because such liberating mechanical force is small, it is easily controlled and hence, easily controllable clearances and preload conditions are achieved."

The Court of Appeals did not disagree with this Finding stating in its Opinion:

"The bearings involved are known as self-aligning bearings and consist of a ball (truncated and containing a bore) and an outer race in which the ball element is rotatably held. Self-aligning bearings have great importance where it is difficult to obtain exact parallelism between a shaft and its housing bore axis, or where the housing may be deflected under load or while in use. These bearings, both those of the appellee and of the appellant, while not so limited, are manufactured for incorporation in aircraft. Because the fuselage of an airplane must be somewhat flexible during

flight it is necessary that the bearings support work transmitting rods and levers must be self-aligning; that is, must allow this flexing and angle changing without binding.

"Prior to the appearance of appellee's bearings the aircraft industry used primarily the Prentiss bearing, the Heim bearing and the Messerschmidt bearing. Of these, the Messerschmidt bearing was probably most suited to the need but the Messerschmidt bearing had an outer race which was machined and required a key or slot for the insertion of the bearing ball. This key or slot left an inherent weakness in the race and in some cases proved unsatisfactory. Also, being machined, there was too much tolerance between the ball element and the race. There was clearly a long-felt want within the industry for a simple, two-piece bearing, strong and durable.

"Potter, what was familiar with the need, reasoned that it would be possible to swage, press or coin a cylindrical metal race of ductible metal around a highly polished ball of hard steel in one operation. The resultant race would be continuous without any slots. The ball element therein would be permanently locked within the race. If the proper tolerance could be achieved and the ball were truncated and contained a bore for receiving a work-transmitting shaft the need within the industry would be met.

"With little or almost no capital Potter and others made certain experiments and found out that this could be done. It was also determined that while the pressing operation froze the race upon

the ball, applying pressure to the median portion of the formed race would thereafter free the ball.

"The bearing thus developed was immediately accepted in the airplane industry."

Though the Findings of Fact in this case are extremely specific as to the exact contribution of the patentee and the new and unexpected results obtained, in fact covering pages 155 to 172 of the Record, the Court of Appeals in its Opinion totally ignores these Findings and holds the patents invalid "as a matter of law".

The Court of Appeals was concerned by the fact that during the prosecution leading to the granting of Patent No. 2,626,841 an amendment was made in the claims more particularly describing the race member of the two-piece bearing by setting forth the stresses which were inherent therein, and because this amendment was made more than one year after admitted public use and sale of bearings the Court of Appeals held the claims of this patent invalid citing the *Muncie Gear* case. It found the same considerations applicable to the second or process patent, notwithstanding express Findings that all claims in these two patents were supported by the original disclosures filed in the Patent Office prior to such public use and sale.

Reasons for Granting the Writ.

I.

It is respectfully submitted that the lower courts have the law in hopeless confusion as to when, if ever, the question of validity is one of fact, one of law or a mixed question of fact and law. Taking the Decisions of only the Ninth Circuit in this regard we note that though the Decisions are almost equally balanced between decisions categorically stating that the question is one of law or one of fact, the Ninth Circuit as late as November 17, 1957, in *Stauffer v. Slenderella Systems of California Inc.*, 254 F. 2d 127 categorically stated:

> "This Court has consistently held that the question of validity of a claim of a patent is one of fact."

However, we note that in *Bergman v. Aluminum Lock Shingle Corp. of America*, 251 F. 2d 801, it held that the question of validity was a matter of law as it did in *Oriental Foods v. Chun King Sales*, 244 F. 2d 909 at 913. Thus the instant case, the *Bergman* case and the *Oriental Foods* case to which should be added *Kwikset Locks v. Hillgren*, 210 F. 2d 483 at 488, stand for the proposition that validity is a question of law; yet *Stauffer v. Slenderella, supra; Hall v. Wright*, 240 F. 2d 787 at 790; *Ralph N. Brodie Co. v. Hydraulic Press Mfg. Co.*, 151 F. 2d 91 at 94; and *Leishman v. General Motors Corp.*, 191 F. 2d 522, stand for the proposition that validity is a question of fact, the Findings

of the District Court on which are to be followed unless found clearly erroneous. Perhaps it can be said that so far as the Ninth Circuit is concerned a Finding of Fact adverse to a patent will be followed while Finding of Fact in favor of a patent will be totally disregarded. The Decisions of this Court are equally divergent. Thus in *Thomson Spot Welder Co. v. Ford Motor Co.*, 265 U. S. 445, 446, this Court stated:

> "The question whether an improvement requires mere mechanical skill or the exercise of the faculty of invention, is one of fact; and in an action at law for infringement is to be left to the determination of the jury."

This may or may not have been overruled in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U. S. 147, which reversed the concurrent Findings of the District and Appellate Court and held the patent invalid as a matter of law. It is respectfully submitted that the practitioners of patent law as well as the Judges administering the same would be greatly assisted by a definitive Decision of this Court as to just when and where and under what conditions validity is a matter of law, a matter of fact or a mixed question of law and fact.

II.

The second reason for granting the petitioner's Writ is the fact that as shown by the Decision in the instant case there is a conflict between the Ninth, Second and Sixth Circuits as to the effect of the cases of *Muncie Gear Co. v. Outboard Co.*, 315 U. S. 759 at 768 and *Schriber-Schroth Co. v. Cleveland Trust Co.*, 311 U. S. 211. In the instant case the Court has held that the amendment that was made in the application

leading to patent No. 2,626,841 was unauthorized and added to the claim an invention not previously presented to the Patent Office and the claim was therefore invalid because devices embodying the invention had been on sale more than a year prior to the presenting of this amendment. Examination of the Record will show that the claims of this patent and as a matter of fact the device of this patent consist simply of two parts, the ball and the race. The claims are directed to these two elements. The amendment which concerned the Court of Appeals was a further explanation of the second element, *i.e.*, the race, setting forth the fact that the outer portion of the race after forming was under tension and the inner portion under compression. There is no question but the patent as originally filed disclosed that the race was formed by bending the same, *i.e.*, swaging, coining, forming around the ball. This inherently set up the stress pattern eventually imparted into the claim as would be apparent to anyone. Anyone reading this Petition is invited to curl his right index finger around his left index finger. He will undoubtedly discover that the outer skin is stretched and the inner portion of the right finger is being squashed. Obviously the stress pattern was inherent in the original disclosure and this fact is expressed in Findings which were set aside by the Court below without any reasons whatsoever. Therefore, the Court of Appeals for the Ninth Circuit has in effect held that it is not permissible to amend a claim more than one year after public use to limit the already claimed elements to characteristics inherent in the original disclosure. If this is the law, the provisions of 35 U. S. Code, Section 132 are nullified and an entirely new defense is created to patents, for

almost all patents find their claims amended in one way or another during prosecution. The Sixth Circuit and the Second Circuit certainly do not agree that this is the law. Thus in *Engineering Development Laboratories v. Radio Corporation of America*, 153 F. 2d 523 at 526, in discussing the *Muncie Gear* and *Schriber-Schroth* cases the Second Circuit pointed out that in both of these cases not only the claims but the specifications had been amended to present combinations quite different from those originally claimed and limited the effect of those cases to such circumstances and again in *Coat Loaders and Stackers, Inc. v. Robert D. Henderson and Big Four Industries, Inc.*, 233 F. 2d 915 at 922, the Court of Appeals for the Sixth Circuit when faced with an argument that the amendments to the claims of the patent before it rendered applicable the *Muncie Gear* and *Schriber-Schroth* cases pointed out that the question was whether the invention as then claimed was disclosed in the original application. It found that the amendment during the course of prosecution did not constitute new matter, but the changes made were merely explanatory of the original disclosure of the application and therefore held that the *Muncie Gear* and *Schriber-Schroth* cases were inapplicable. These cases are both directly contrary to the instant case and establish that a clear conflict arises between the law as most recently announced by the Ninth Circuit and the law of the Second and Sixth Circuits.

The mere suggestion that there might be a defense based upon the type of amendment made in the present case invites defendants to expend needless Court time and legal effort in attempting to sustain such a spuri-

ous defense if there is not such a defense. As noted in the Opinion of the Sixth Circuit in *Coat Loaders and Stackers, supra,* the major portions of the parties' Briefs were devoted to this issue and the issue was the subject of an extended separate Hearing in the District Court. This Court would do a great service to the patent bar and to the Judges administering the patent law by a definitive answer to the question of whether or not under the instant circumstances such defense is spurious.

III.

The third reason for granting the Writ is to clear up the confusion caused by the instant Decision of the Ninth Circuit as to Rules of Law applicable to method or process patents. In the present case patent No. 2,724,172 which is clearly a process patent was held invalid for the same reasons and upon the same authorities applied to the apparatus patent No. 2,626,841 and particularly the Court applied to this method patent the Rule enunciated by this Court in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.,* 340 U. S. 147 in which this Court announced a Rule particularly applicable to combinations of old elements. However, the patent under consideration is not a combination of old elements but is a method patent disclosing and claiming a pair of new steps performed upon the metallic elements forming the eventual bearing. The Court has specifically found that the bearing thus formed was new and filled a long-felt want. We specifically urge that whereas a combination of old elements in order to be valid must perform a new and unobvious function, the correlative requirement for a process patent is fulfilled if the process involving two

new method steps results in the creation of a new device which is so unobvious as to fulfill a long-filled want. Accordingly, it is respectfully submitted that a third reason for the granting of a Writ in this case is to instruct the Courts and the Patent Bar as to the differences in considerations in the adjudicating of combination and process patents, and in particular whether *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, 340 U. S. 147, overruled or modified *Expanded Metal Co. v. Bradford*, 214 U. S. 366.

IV.

The fourth reason for granting the Writ is to clear up the confusion caused by the instant decision of the Ninth Circuit as to rules applicable to construction of a patent when the sole question of validity is involved. In resolving this question the Court below, without any precedence whatsoever but through agile unwarranted mental gymnastics, invokes rules limited in their application solely and uniquely to establishment of file wrapper estoppel in infringement situations as rules for establishing standard of invention; and does so contrary to the express provisions of 35 U. S. C., Section 103, which requires a court to consider the "subject matter as a whole" and not piecemeal as the Court below did in coming to the clearly erroneous conclusion that the patent merely covered the development of stresses.

The Second Circuit, as for example in *Catalin Corporation of America v. Catalazuli Manufacturing Co.*,

Inc., 79 F. 2d 593, has repeatedly held that resort may not be had to a file wrapper when the sole question involves standard of invention. There is thus conflict among the Circuit Courts which should be resolved by this Court.

Conclusion.

For the foregoing reasons a Petition for Writ of Certiorari should be granted.

Respectfully submitted,

LEONARD S. LYON,
Attorney for Petitioner.

APPENDIX A.

Opinion of the United States Court of Appeals for the Ninth Circuit.

United States Court of Appeals for the Ninth Circuit.

Aetna Steel Products Corporation, Appellant, vs. Southwest Products Company, a corporation, Appellee, No. 16,143.

August 16, 1960.

On Appeal from the United States District Court for the Southern District of California, Central Division.

Before: Hamlin and Jertberg, Circuit Judges, and Lindberg, District Judge.

Lindberg, District Judge:

This is an appeal from a judgment and decree of the District Court for the Southern District of California, Central Division. The cause of action is one for alleged infringement of Potter patents numbered 2,626,841 and 2,724,172 for a bearing and its method of manufacture. Plaintiff-appellee, hereafter referred to as plaintiff or plaintiff-appellee, is a California corporation and owns the patents. Defendant-appellant, hereafter referred to as defendant as well as defendant-appellant, is a New York corporation and owns and operates Kahr Bearing (as a division) in Burbank, California. Jurisdiction of the trial court was under 28 U.S.C. § 1338, and the Patent Laws, Title 35 U.S.C. Jurisdiction to review the judgment and decree is conferred by 28 U.S.C. §§1291 and 1292(4).

The bearings involved are known as self-aligning bearings and consist of a ball (truncated and contain-

ing a bore) and an outer race in which the ball element is rotatably held. Self-aligning bearings have great importance where it is difficult to obtain exact parallelism between a shaft and its housing bore axis, or where the housing may be deflected under load or while in use. These bearings, both those of the appellee and of the appellant, while not so limited, are manufactured for incorporation in aircraft. Because the fuselage of an airplane must be somewhat flexible during flight it is necessary that the bearings support work transmitting rods and levers must be self-aligning; that is, must allow this flexing and angle changing without binding.

Prior to the appearance of appellee's bearings the aircraft industry used primarily the Prentiss bearing, the Heim bearing and the Messerschmidt bearing. Of these, the Messerschmidt bearing was probably most suited to the need but the Messerschmidt bearing had an outer race which was machined and required a key or slot for the insertion of the bearing ball. This key or slot left an inherent weakness in the race and in some cases proved unsatisfactory. Also, being machined, there was too much tolerance between the ball element and the race. There was clearly a long-felt want within the industry for a simple, two-piece bearing, strong and durable.

Potter, what was familiar with the need, reasoned that it would be possible to swage, press or coin a cylindrical metal race of ductible metal around a highly polished ball of hard steel in one operation. The resultant race would be continuous without any slots. The ball element therein would be permanently locked within the race. If the proper tolerance could be

achieved and the ball were truncated and contained a bore for receiving a work-transmitting shaft the need within the industry would be met.

With little or almost no capital Potter and others made certain experiments and found out that this could be done. It was also determined that while the pressing operation froze the race upon the ball, applying pressure to the median portion of the formed race would thereafter free the ball.

The bearing thus developed was immediately accepted in the airplane industy. Potter, believing that he had invented something new and useful, very soon made application for a patent. This was back in 1945. The first application covered both the completed article and the method of manufacture. Division between article and method was ordered by the Patent Office in accordance with 37 C.F.R. § 1.142. (See also 35 U.S.C.A. § 121 of present law and Rule 1.141 et seq. Rules of Practice U. S. Patent Office.) The applicant then cancelled those claims relating to method without prejudice.

The first application was filed as serial No. 606,678 on July 23, 1945 and matured into Patent No. 2,626,841 on January 27, 1953. Having cancelled method claims without prejudice, divisional application for the method claims was filed August 8, 1947 as serial No. 767,496. This application was ultimately turned down by the Patent Office and appeal therefrom while initiated was never completed. The Patent Office deemed the application abandoned June 11, 1951. A petition to revive was considered and granted for the purpose of perfecting an appeal. But because appli-

cant failed to file a brief the appeal was dismissed October 1, 1951 by Order of the Board of Appeals.

Before the article application was granted, but after April 1, 1952, the date on which the two claims of Patent 2,626,841, the article patent, were allowed, another divisional application for the method claims was filed December 16, 1952 which ultimately matured into Patent No. 2,724,172. (Hereafter the two patents will be referred to by their last three digits: '841 and '172.)

Very early in the history of this controversy one of Potter's associates became associated with the company that is now the defendant in this action. The accused bearings manufactured by the defendant, it may be noted, are so close in similarity to those of appellee that they are interchangeable in application and this fact is made known to the industry.

This action was filed October 17, 1956. Following discovery and pretrial proceedings a pretrial order was entered and thereafter defendant moved for summary judgment. The motion for summary judgment was heard and ruled upon by another judge of the district. Judge Hall commented at the beginning of the trial that he had noticed that the motion had been denied, that he expected the case to be somewhat complicated, and indicated to counsel that he would not entertain a new motion at that time. The case immediately proceeded to trial upon its merits.

It was and is the appellant's position that neither of appellee's patents is valid but that even if they were valid the accused bearings do not infringe.

After a trial of twelve days in which experts testified for both sides the trial court, in an oral decision,

held Claims 1 and 2 of Patent '841 valid and infringed, and also held Claims 1, 2, 3, 4 and 6 of Patent '172 valid and infringed.[1]

Upon appeal appellant condenses its specifications of error into five questions for this court as follows:

> 1. As a matter of law, did the trial court apply the correct criteria and standard of invention * * *?

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[1]Following is the substance of the court's oral remarks beginning at page 1285 of the transcript:

"The Court: I don't think that is material. Because the description here of the stresses and strains that are set up in the amendment are not in my judgment a part of the patent.

"I don't think they are necessary to the patent. I think they are a description of a natural phenomenon. I think they occur in the defendant's article of manufacture, as well as they occur in the plaintiff's article of manufacture. I think they occur in every piece of metal that is bent or every piece of metal that is compressed in a die.

"The important thing, it seems to me, in the '841 patent is that it describes this object which had not been made before, and I do not think was covered by any of the prior art to which reference has been made.

"I have followed counsel, and I have followed the witnesses as carefully as I can in connection with their testimony concerning each of the patents. There isn't any doubt but what some things were disclosed, there isn't any doubt but what some things are used in this patent which were generally known prior to this invention, and there isn't any doubt but what in every patent case that I have tried there have been things included in the patent, and they have used knowledge, laws of mechanics, laws of nature, laws of electronics, which were generally known, but brought them together in an invention; and here in Potter he did that.

"Mr. Miketta: Has your Honor considered that any new result was created by Potter that wasn't created by Fiegel or obtained by Fiegel?

"The Court: Yes.

"Mr. Miketta: What is the new result?

"The Court: Fiegel's invention was a three-piece invention, and this is a two-piece invention, and Fiegel's invention I do not think could be used, or his article of manufacture could not be used, as the witnesses have testified in this case these inventions are used. * * *

"As I was saying, I do not think that any of these patents

2. Did the trial court commit error in failing to find that the Potter Patents had been issued in violation of statutory requirements that no new matter be added * * *?

3. Did the court make conflicting and erroneous findings of fact?

4. Does defendant infringe * * *?

5. Did the trial court err in denying defendant's motion to strike certain testimony [and in failing to receive other testimony] * * *?

---

had the conception which is here in the Potter patent, the making of '841.

"'I am a little concerned about claim 1 of '841, because of the addition there of matters which were not disclosed originally.

"I think that claim 2 is a valid claim.

"Mr. Miketta: May the court please, if that phraseology of strains and stresses of that stress pattern, you say, is inherent anyway—

"The Court: I think so. But I don't think it affects the claim.

"Mr. Miketta: Then it is also inherent in the references.

"The Court: It is also inherent in what?

"Mr. Miketta: In the prior art references. And therefore—

"The Court: I don't think it makes any difference one way or the other.

"He found a way to make a bearing for which there was great and immediate commercial success, and for which there is still a great demand in the industry, as indicated for instance by the defendant's catalog and the list of interchangeability of bearings made by different companies.

"So the court will hold '841 to be valid.

"And in examining the claims and disclosures in '172 the language of course is different. It was written by two different men, and it would naturally be different, but I think the central idea of the method of forming these bearings, which was disclosed in the '841 patent, is covered in the claims of '172, and I hold that '172 is valid.

"I think after examining the bearings here that I also have to hold that the patent is infringed by the defendants. * * *

"Have I made myself sufficiently clear for counsel to draw findings and judgment?

"Mr. Lyon: Yes, sir.

"Mr. Miketta: I think so.

"The Court: Very well."

Appellant assigns numerous specifications of error with respect to findings of fact and conclusions of law, details of which need not be set forth in this opinion in view of the conclusion reached by this court.

The issues thus raised involve both validity and infringement. We treat first the question of validity as raised by specifications of error included in questions one and two noted above, and in order to better understand the problem it is necessary to examine in detail the file wrappers, Exhibits A, B and C, including the chronology of application 606,678—that file wrapper which is Exhibit A and which ultimately matured into Patent '841. Schriber Co. v. Cleveland Trust Co., 311 U.S. 211.

July 23, 1945 the Patent Office received and filed said application, duly supported by oath. In brief, it discloses that the primary object of the invention is the production of a spherical, self-aligning bearing which is simple and inexpensive in construction and in which a ball element is freely journaled and securely held without lost motion. The application teaches forming a bearing race over a bearing ball in closely and evenly engaged position, whereby the contact surfaces conform and produce a tight connection. The race is then mechanically expanded in such manner as to produce sufficient bearing clearance and freedom without any undesirable looseness. Illustration is furnished of the manner in which pressure is applied to the periphery of the bearing race at its median portion to elongate the latter toward the two ends of the race so as to produce clearance and eliminate the tight connection.

The bearing race is preferably made out of ductile material such as brass or other metal which can readily be formed by pressing or swaging and later elongated.

The bearing ball is first made of relatively hard metal. The bearing race is made from a cylindrical blank of ductile material. After forming the ductile blank around a ball and into tight engagement the assembly is subjected to sufficient contractive pressure by rolling contact of one or more pressure rolls "by-which sufficient force is applied diametrally inwardly to expand and elongate the bearing race toward both of its ends,"[2] to relatively release the bearing ball and race. The application teaches that a similar expanding or elongating effect can be produced upon the bearing race after the crown remaining following the forming operation has been machined off by applying the pressure rollers against the cylindrical outer surface of the race. "It is also contemplated that other means may be employed for elongating the bearing race."[3] Following the applicant's description of the principles of operation of his invention, he made the following claims:

> 1. A self aligning bearing, comprising, a bearing ball having a spherical bearing surface and an axially disposed work piece receiving bore, and a bearing race having a raceway therein corresponding with the spherical surface of said bearing ball to freely journal the bearing ball in said raceway, said bearing race being of single piece construction.

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[2]Page 4, Specifications, Application 606,678, found in Defendant's Exhibit A.

[3]Page 5, Specifications, Application 606,678, found in Defendant's Exhibit A.

2. A self aligning bearing, comprising, a steel bearing ball having a curved bearing surface, and a single piece bearing race of malleable material having an inner raceway corresponding in curvature with the curved surface of said ball and in which said ball is rotatively retained.

3. The method of forming a self aligning bearing having a bearing ball and a ductile bearing race, said ball and race being formed with corresponding curved surfaces there-between, comprising, assembling said ball in an annular blank having an inner cylindrical surface substanially corresponding in diameter with that of the bearing ball and having opposite end portions, compressing said end portions inwardly to conform and produce a binding engagement with the curved surface of said ball, and finally compressing the median portion inwardly between the ends of the bearing race to elongate the bearing race longitudinally towards its opposite ends whereby the bearing surfaces between the bearing ball and bearing race are released to permit free rotation between the ball and raceway.

4. The method of forming a self aligning bearing having a bearing ball of hard material and a bearing race of ductile material in which said ball is retained and freely journaled, comprising, assembling said ball in an annular bearing race blank having an inner cylindrical surface corresponding in diameter with the diameter of the ball and having oppositely disposed radially converging end surfaces, compressing said end portions inwardly with said inner cylindrical surface of the

bearing blank formed closely against the surface of said ball while said radially converging end surfaces assume normal position to the axis of the bearing race, whereby the bearing race tightly grips the surface of the ball, and finally applying sufficient inward pressure against the perimeter of said bearing race to expand and elongate the bearing race and free the bearing surfaces between the ball and the bearing race.

December 4, 1946 the Patent Office required division between Claims 1 and 2, which relate to the bearing itself, and 3 and 4, which relate to the method of manufacture.

May 15, 1947, the Patent Office received word from the applicant requesting a cancellation of Claims 3 and 4 without prejudice and requesting the addition of the following claim:

5. A self contained and selfaligning bearing, comprising, a bearing ball having a smoothly finished perimeter and an axial work piece receiving passage therein, and an annular bearing race, said race comprising a ductile collar having an inner annular raceway formed inwardly at both longitudinal ends thereof and conforming closely and freely over the curved surface of the bearing ball, whereby the ball and bearing race are movably retained together.

June 22, 1948 Claims 1, 2 and 5 were rejected as being fully met by Chambers (referring to Chambers, et al, Patent No. 2,382,773) and by Scoville (referring to Scoville, Patent No. 1,266,061).

December 8, 1948 the Patent Office received communication from the applicant cancelling Claims 1, 2 and 5 and adding the following:

> 6. A self aligning bearing, comprising a bearing ball having a spherical bearing surface and an axially disposed work piece receiving bore, a malleable single piece annular bearing race having an inner cylindrical surface corresponding in diameter with the diameter of said ball, means for compressing the outer end portions of said race in close complimentary engagement over the spherical surface of said ball, and means applicable around the median portion between the ends of said face for expanding the race longitudinally to produce free rolling contact between the ball and race.

November 1, 1949 Claim 6 was rejected both on the ground that as written it embraced both an element and a means of manufacture, and also upon Chambers in view of Heim (referring to Heim, Patent No. 2,476,728). The communication from the Patent Office also recited: "The patent to Chambers discloses the full equivalent of applicant's structure. Further, no invention would be involved to expand the race longitudinally to produce a free rolling contact surface as taught by Heim."

March 7, 1950 the Patent Office received cancellation of Claim 6 and a request for the addition of the following claim:

> 7. A self-aligning bearing construction involving inner and outer bearing members, said inner bearing member comprising a bearing ball having a spherical bearing surface and an axially disposed

bore for receiving a shaft, a non-ferrous malleable metal single piece outer bearing race member having a spherical socket corresponding in shape to the spherical inner bearing member and having parallel radial end walls, said outer race member being stressed such that the metal adjacent the inner peripheral surface area is compressed and the metal adjacent the outer peripheral surface is under a stress tension to form an unstretchable peripheral area which, when subjected to a rolling pressure, will cause the metal adjacent the inner peripheral surface to expand the ends of said outer bearing member in a direction away from the axis of the self-aligning bearing.

The above claim is reproduced as it appears after certain minor changes were made in the wording at the request of the Patent Office.

January 5, 1951, the Patent Office rejected Claim 7 for the reason that it wasn't sufficiently definite to described a finished article and for the further reason that a method limitation, i.e., the stressed condition of the metal, is an improper identification of a finished article. The office also considered the claim, as then understood, to be unpatentable over either Claus (referring to Claus, Patent No. 1,664,189) or Chambers. The examiner contended that "each of the above references disclose a self-aligning bearing comprising a single piece outer member having a spherical inner bearing surface and an inner bearing ball member having an outer spherical surface corresponding in shape to the inner bearing surface of the outer member and being freely journaled therein."

July 6, 1951 the Patent Office received a communication from the applicant in response to the above wherein it was observed that claim seven and a new claim were not directed to a finished article but to a combination of elements which are instrumental in producing the finished article. It was urged that it was conceivable that such an article could be furnished to a fabricator who would have the facilities at hand for applying the rolling pressure to the specially stressed outer bearing member.

With this last communication Claims 8, 9 and 10 were added. Claim 8 reads:

> 8. A self aligning bearing construction involving inner and outer bearing members, said inner bearing member comprising a bearing ball having a spherical bearing surface, a malleable single piece outer bearing race member having a spherical socket corresponding in shape to the spherical inner bearing member, said outer race member being stressed such that the metal adjacent the inner peripheral surface area is compressed and the metal adjacent the outer peripheral surface is tensioned.

Claims 9 and 10 were later rejected and no purpose would be served in reproducing them here.

April 1, 1952 Claims 7 and 8 were allowed and became Claims 1 and 2 of the patent. This action was declared final.

July 22, 1952 formal Notice of Allowance was mailed by the Patent Office to the applicant.

If we study the application most carefully up to March 7, 1950 we understand an attempt to patent a

spherical self-aligning bearing in which a ball element is freely journaled and securely held without lost motion in a single piece, continuous bearing race. The ball was to be first made of relatively hard metal. The bearing race was preferably made of ductile material such as brass or other metal which can be readily formed by pressing or swaging and later elongated. The application contemplated forming the bearing race over the bearing ball in closely and evenly engaged position by means of forcing suitable dies toward each other upon the assembly under tremendous pressure, whereby the contact surfaces conform and produce tight connection. The race was then to be mechanically expanded and elongated to produce sufficient clearance.

The application, up to said date, teaches that this mechanical expansion in a longitudinal direction is accomplished by subjecting the assembly to contractive pressure by rolling contact of one or more pressure rolls by which means force is applied inwardly upon the median portion of the race to expand and elongate the bearing race towards its two ends. Following the forming operation the race is left with a pronounced crown. The specifications teach that the expanding or elongating effect can be produced after the resultant crown has been machined off. (In the finished article the crown is always machined off, leaving the outer surface of the race smooth and cylindrical.)

Claims 3 and 4 of the original application both speak of elongating the race toward its ends by applying force to the median portion of the race.

Claim 6, added December 8, 1948, speaks of expanding the race longitudinally.

Prior to March 7, 1950, at which time Claim 7 was added, all of the teaching, including the drawings, is to the effect that a soft collar is first pressed or formed around a hard ball and there after expanded longitudinally so as to free the ball. The expansion contemplated up to this point is always longitudinal. Up to this point the applicant realized no success in his effort to patent. This is understandable, for even a layman appreciates that if pressure is applied to the meridian portion of a ductile collar encompassing a hard ball, the ductile metal will spread, forcing the ends of the collar away from the meridian. This phenomenon would take place irrespective of whether or not any peculiar stresses were locked therein.

Webster's New Collegiate Dictionary defines ductile as "Capable of being drawn out or hammered thin,—said especially of metals, as gold." The applicant himself suggests "brass or other metal which can readily be formed by pressing or swaging and later elongated."

Clearly gold or lead would be inappropriate for purposes of a bearing race in view of the intended application of these particular bearings, but in view of all that the application teaches up until March 7, 1950, those metals could be utilized and would fulfill each step then contemplated; for up until that date a spreading of the metal near the meridian of the race in a direction parallel with the axis was all that was contemplated.

An understanding of the prior patents within the art relied upon by the Patent Office in rejecting all claims prior to March 7, 1950 will serve to highlight the lack of invention in the teaching of the application up to

that point. Two of the patents thus relied upon are Chambers and Heim.

Chambers et al, No. 2,382,773, patented August 14, 1945, application January 2, 1943, relates to improvements in self-aligning bearings and a method of making the same. The ball element of Chambers' bearing is identical with the ball element in Potter's bearing. Chambers' race element is not cylindrical as is Potter's, but rather like a rod with a flattened disk at one end through which a hole is machined corresponding in diameter with the ball element. Upon each plane of this resulting ring a circular V-groove is cut completely encircling the hole, leaving a continuous lip encircling the hole both on the top and on the bottom of the ring. The specifications contemplate forcing suitable dies toward each other and into the circular V-grooves while the ball element is positioned within the hole. The two dies are semi-spherical on the inside and as they are forced together they force the continuous deformable lips over simultaneously in one operation whereby the bearing surface of the race is formed complimentary to the bearing surface of the ball element. The grooves are thereafter filled with a soft metal. Chambers, et al, does not contemplate the formation of a tight engagement and thereafter a freeing step.

Heim No. 2,476,728 relates to the mechanical treatment of bearings to ease their action preparatory for use and teaches a simple and practical art for remedying excessive t ;htness of bearings. Heim states, "it may be ted that in many bearings, which term is used in a oad sense throughout this application, the

construction method of manufacture is such that when completed the inner member is so tightly gripped by the parts within which it relatively swings or rotates that it is ill-prepared to be put into practical use." He then discusses the problem of freeing such bearings while maintaining the uniformity of contact between the contact surfaces.

His invention consists of a frame which securely holds the ball by means of a pin through its bore. Another part of the frame supports an air hammer with an adjustable stroke. The head of the hammer is shaped to fit the race upon which it will strike. While the hammer is striking the race is swung throughout its movement. Because the stroke of the hammer is limited, no one spot of the race will receive more force than necessary or desired, since after the first stroke or two the metal of the race will be deformed to the point where the hammer will no longer reach that point. Since the ball is much harder than the race the deformation will always occur in the race.

Heim, of course, teaches much more than the mere striking of a race with an air hammer but what it teaches certainly embraces that solution.

There was, moreover, much testimony in the trial that freeing bearings by hammering upon the race is very old in the art. This hammering, of course, produces a mechanical expansion of the race and that is precisely what Potter teaches prior to March 7, 1950.

A large number of prior patents, some not considered by the Patent Office, relating to the bearing art were brought to the court's attention and discussed throughout the trial. Exhibit "D" is a looseleaf note-

book consisting of over twenty such patents.[4] We will consider the more pertinent ones.

Birchwood No. 1,050,422, patented January 14, 1913, describes a ball and socket joint formed in the following manner. A cylindrical recess in the end of a rod has a flared slot cut into and through it, leaving two halves, somewhat cut away, facing each other. The ball element, which consists of a ball supported on a pedestal, is inserted between the two halves which are then pressed around the ball. This operation causes the flared slot to assume a parallel position through which the pedestal is free to move. The only similarity between Birchwood and Potter is that the ball element in each acts as a die member in the forming operation and remains a part of the finished bearing. Tight engagement and subsequent liberation is not contemplated.

Porter No. 1,123,796, patented January 5, 1915, consists of a ball and socket joint made by placing the ball element into a cylindrical element bored in the end of a rod, the side walls of which are then turned or swaged over against the ball, locking it therein. Again, the only similarity is the fact that the ball element acts as a die in the forming operation.

Erickson No. 1,481,000, patented January 5, 1924, discloses a ball container utilized in ball bearings. The container, which serves to keep the balls in place between the bearing surfaces, is made of sheet metal and is stamped around the balls so as to lock them therein.

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[4]Volume IV of transcript includes copies of all patents introduced in evidence. Also see pretrial order and exhibits referred to therein.

Again, the balls act as dies but there the similarity ends.

Fiegal No. 1,693,748, patented December 4, 1928, discloses a ball and socket joint remarkably similar to the self-aligning bearings involved here. Fiegal begins with a tube which is flared out at one end. The inner surface is roughened and lined with babbitt. The babbitt is machined so that it conforms in diameter with the ball and the babbitt in the end away from the flare of the tube is machined into a semi-spherical seat. The ball element, which is a truncated sphere with a bore through it, as is Potter's, is placed in said seat and the entire assembly is forced down a narrowing die, flare end last. As the assembly is forced down the narrowing die the flared end is forced inwardly, which in turn forces the babbitt above the equator of the ball to be forced against and around the ball, locking it permanently therein. No liberation step is contemplated.

Hoern No. 1,798,738, patented March 31, 1931, relates to a ball and socket joint such as are commonly used in the heads of tappet adjusting screws. Each ball is utilized as a tool to form the socket in which it permanently remains. The invention contemplates forcing the ball into the end of a solid rod while the rod is held in a die which controls the flow of the metal of the rod into any desired shape and also confines it. More than one-half of the ball is forced into the rod and the metal of the rod, including that portion above the equator of the ball, is forced into binding engagement with the ball. An important feature of this invention is that the ball while frozen in this manner may be worked upon. The ball is then liberated from

this tight grip of the socket by applying appropriate pressure to the sides of the head in which the ball is held.

Paulus No. 2,252,351, patented August 12, 1941, relates to the method of producing power transmitting units utilizing ball and socket joints. Paulus recognized that "it has heretofore been proposed to shape one of the elements about the companion element." His invention seeks to eliminate or avoid many of the difficulties encountered when this method is employed. One of these difficulties is the fact that the connection is too tight when first made. He teaches striking the ball element while the companion element is positioned upon a special anvil. He calls this an adhesion-breaking step.

Townsend No. 2,335,710, patented November 30, 1943, relates to a bullet core stripping machine. For the purpose of salvaging the steel cores without damaging them the outer jacket is stretched during the cutting operation by means of being rolled. This could be considered an equivalent of the stretching contemplated by Potter as indicated by his claims during the first five years of his application.

Taylor No. 2,382,349, patented August 14, 1945, but applied for August 23, 1943, teaches a method of making a race for a self-aligning bearing such as employed in the Messerschmidt bearing. An outer ring member substantially the same as is used by plaintiff is coined or press-formed about a hard steel blank, spherical and truncated but lacking the shaft receiving bore. The blank is then turned ninety degrees and forced out of the race, the interior surface of which, now conforms to the blank in shape. Forcing it out in

this way produces the key slot typical of the Messerschmidt bearing race. While the idea of using the ball element as a die in the forming operation is completely lacking in Taylor, the forming operation is essentially identical with the operation taught by Potter. After the initial forming operation similarity between the two patents is lacking.

We note the foregoing patents in the bearing art for the purpose of demonstrating the appropriateness of the action of the Patent Office in rejecting Claims 1, 2, 5 and 6 of the article application, as well as for the proposition that the patent as issued lacks patentability.

Birchwood, Porter, Erickson, Fiegel, Hoern and Chambers, to name a few, teach the utilization of the ball element as a die member in the forming operation.

Chambers, Fiegel and others taught that one element of such bearings should be shaped about its companion member. Paulus in 1941 recognized that this was old, as did Heim.

The need for liberation when this method of forming was utilized was certainly recognized by both Paulus and Heim, as both teach a solution to that very problem. Hoern also recognized the fact of tight connection, utilized it, then teaches that striking the outer member releases the tight engagement. Paulus and Heim treat this tightness as an undesirable result and teach a solution, while Hoern treats it as a desirable step to be utilized and thereafter teaches a solution.

Thus it is that all of the features of Potter's patent, '841, so far as disclosed prior to the March 7, 1950 amendment to the application, are old in the art. This in itself does not preclude invention but we are com-

mitted to the rule announced by the Supreme Court in A. & P. Tea Co. v. Supermarket Corp., 340 U.S. 147, 152:

> "Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements. The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained when, on the contrary, their effect is to subtract from former resources freely available to skilled artisans."

See also Moist Cold Refrigerator Co. v. Lou Johnson Co. (9 Cir.) 249 F. 2d 246; Bergman v. Aluminum Lock Shingle, etc. (9 Cir.) 251 F. 2d 801; Rohr Aircraft Corp. v. Rubber Teck, Inc. (9 Cir.) 266 F. 2d 613.

Any skilled artisan in the bearing art could take Taylor's patent, add to it the concept of utilizing the ball element rather than a blank in the forming operation—a concept suggested repeatedly in the prior art—and, if the end result were a bearing frozen in tight engagement, liberate it as taught by Heim, Hoern and others, and he would produce a bearing in all respects identical with that of plaintiff. But by so subtracting from the prior art he could not claim this aggregation as a monopoly. Lincoln Engineering Co. v. Stewart-Warner Corp. 303 U.S. 545.

It is only when we view the stresses and strains described in the March 7, 1950 amendment do we recognize something that has not been so described in the prior art patents, and we now examine that aspect of the case relating to question 2 of appellant's six pro-

posed questions: Does the amendment adding Claim 7 to the application constitute new matter?.

By adding Claim 7 to the application on March 7, 1950 the applicant informs the Patent Office that the bearing race member is stressed such that the metal adjacent to inner surface is compressed and the metal adjacent the outer surface is under a stress tension forming an unstretchable peripheral area which, when subject to a rolling pressure, causes the ends of the race to be expanded away from the axis of the bearing member.

This claim, it should be pointed out, does at least two significant things. First, it limits the metal to be used in the race to those metals which are ductile, yet capable of locking therein the compressive and tension stresses which the claim, for the first time, speaks of; and, secondly, this claim calls for a bearing race which will expand in a direction away from the axis, radially rather than longitudinally. This latter concept, however, is not only new but at variance with all the teaching of the application and specifications prior thereto.

This claim was added almost five years after the application was filed. Also, the evidence is clear to the effect that the bearings manufactured by plaintiff have been manufactured in the same manner continually since prior to the application date, and this is so whether the process is explained in accordance with the first teaching or as latterly incorporating the concept of certain stresses and strains locked in the race.

35 U.S.C. § 132 provides that no amendment shall introduce new matter into the disclosure of the in-

vention. While this section was enacted in 1952, after the amendment here involved, that much of the section which excludes new matter is no more than a codification of the existing law. Applicable law did require that application be made within one year of public use or sale in this country. (See § 31 of repealed Title 35. This provision now appears in § 102 of present Title 35.) As stated in Muncie Gear Co. v. Outboard Co., 315 U.S. 759, 768:

> "The claims in question are invalid if there was public use, or sale, of the device which they are claimed to cover, more than two years before the first disclosure thereof to the Patent Office. *Cf.* Railway Co. v. Sayles, 97 U.S. 554, 557, 559, 563-64; Schriber-Schroth Co. v. Cleveland Trust Co., supra, at 57. Section 4886 of the Revised Statutes would in terms provide for their invalidity had they been offered by application rather than by amendment; and whatever may be the efficacy of an amendment as a substitute for an application, it surely can effect no more than the application itself."

We are faced then with this trilemma: If the amendment adding Claim 7 to the first application actually presents new matter to the Patent Office and the patent as issued depends upon said new matter, the claims, as just indicated, are invalid, having been in public use for almost five years. If, as claimed by appellee, the alleged new matter is readable upon the specifications, drawings and claims as first filed, it must be held that the same would also be readable upon the prior patents in the art, including those which caused the Patent Office to reject the earlier claims, and if this be the case

there is nothing patentable. It is clearly the law that a patent should not be granted for discovery of a result that would flow naturally from the teachings of the prior art. *In re* Kepler, 132 F. 2d 130; Application of Heinrich, 268 F. 2d 753; Application of Welter, 255 F. 2d 944; Application of Libby, 255 F. 2d 412; *In re* Bourbon, 240 F. 2d 358; and *In re* Eisenhut, 245 F. 2d 481. Lastly, if as suggested by the trial court at one point,[3] the alleged new matter—the stresses and strains set up in the amendment—are not part of the patent, what is left is indistinguishable from the claims rejected by the Patent Office. If the applicant was entitled to a patent upon any of the claims rejected, his remedy was by way of appeal from the rejection. See §§ 141 through 146 of Title 35 U.S.C. Unless a rejection has been appealed to the Board of Appeals a district court is powerless to grant a patent, and only then if the Commissioner is made a party defendant and the action filed in the District of Columbia; but that is what the court below would be attempting had it found validity upon some claim other than the claim or claims awarded by the Patent Office. 35 U.S.C. § 145.

As we have just indicated, the stress and strain matter added by the March 7, 1950 amendment is either new to the application—hence unpatentable—or no more than a scientific explanation of what takes place in the manufacture of Potter's originally described article as well as other bearings patented in the art. A scientific explanation cannot be patented in any event, whether originally disclosed in an applica-

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[3]See footnote 1.

tion or by way of amendment. DeForest Radio Co. v. General Electric Co., 283 U.S. 664.

Potter Patent No. '172, the method patent, is dependent upon the application for the article patent. The only difference between the claims allowed in Patent '172 and the claims rejected in application 767,496, the first divisional application, is the fact that the claims finally allowed contain language concerning the same compressive and tension stresses heretofore discussed in relation to Patent '841. Again, this reference to stresses and strains was not brought to the attention of the Patent Office until 1950. All that we have said in connection with Patent '841 applies equally to Patent '172. It suffers the same infirmities.

We find, therefore, that both Potter Patents, 2,626,841 and 2,724,172, are invalid. While we feel this conclusion could be reached upon factual considerations we reach it, as indicated throughout, as a matter of law. Both patents being invalid, we do not reach the question of infringement, or consider other specifications of error.

Reversed and remanded with directions to enter judgment for appellant.

(Endorsed) Opinion Filed Aug. 16, 1960.

Frank H. Schmid, Clerk.

APPENDIX B.

Sections 101, 102, 103 and 132 of the Patent Act of 1952.

§ 101. Inventions patentable

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Section 101—Section Revised

Based on title 35, U. S. C., 1946 ed., § 31 (R. S. 4886, amended (1) Mar. 3, 1897, ch. 391, § 1, 29 Stat. 692, (2) May 23, 1930, ch. 312, § 1, 46 Stat. 376, (3) Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212).

The corresponding section of existing statute is split into two sections, section 101 relating to the subject matter for which patents may be obtained, and section 102 defining statutory novelty and stating other conditions for patentability.

Section 101 follows the wording of the existing statute as to the subject matter for patents, except that reference to plant patents has been omitted for incorporation in section 301 and the word "art" has been replaced by "process," which is defined in section 100. The word "art" in the corresponding section of the existing statute has a different meaning than the same word as used in other places in the statute; it has been interpreted by the courts as being practically synonymous with process or method. "Process" has been used as its meaning is more readily grasped than "art" as interpreted, and the definition in section 100 (b)

makes it clear that "process or method" is meant. The remainder of the definition clarifies the status of processes or methods which involve merely the new use of a known process, machine, manufacture, composition of matter, or material; they are processes or methods under the statute and may be patented provided the conditions for patentability are satisfied.

R. S. 4886. Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements thereof, or who has invented or discovered and asexually reproduced any distinct and new variety of plant, other than a tuber-propagated plant, not known or used by others in this country, before his invention or discovery thereof, and not patented or described in any printed publication in this or any foreign country, before his invention or discovery thereof, or more than one year prior to his application, and not in public use or on sale in this country for more than one year prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law, and other due proceeding had, obtain a patent therefor.

§ 102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless—

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented by the applicant or his legal representatives or

assigns in a foreign country prior to the date of the application for patent in this country on an application filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or

(f) he did not himself invent the subject matter sought to be patented, or

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Section 102—Section Revised

Paragraphs (a), (b), and (c) are based on 35 U. S. C., 1946 ed., § 31 (R. S. 4886, amended (1) Mar. 3, 1897, ch. 391, § 1, 29 Stat. 692, (2) May 23, 1930, ch. 312, § 1, 46 Stat. 376, (3) Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212).

No change is made in these paragraphs other than that due to division into lettered paragraphs. The interpretation by the courts of paragraph (a) as being more restricted than the actual language would suggest (for example, "known" has been held to mean "publicly known") is recognized but no change in the

language is made at this time. Paragraph (a) together with section 104 contains the substance of title 35 U. S. C., 1946 ed., § 72 (R. S. 4923).

Paragraph (d) is based on 35 U. S. C., 1946 ed., § 32, first paragraph (R. S. 4887 (first paragraph), amended (1) Mar. 3, 1897, ch. 391, § 3, 29 Stat. 692, 693, (2) Mar. 3, 1903, ch. 1019, § 1, 32 Stat. 1225, 1226, (3) June 19, 1936, ch. 594, 49 Stat. 1529).

The section has been changed so that the prior foreign patent is not a bar unless it was granted before the filing of the application in the United States.

Paragraph (e) is new and enacts the rule of Milburn v. Davis-Bournonville, 270 U. S. 390, by reason of which a United States patent disclosing an invention dates from the date of filing the application for the purpose of anticipating a subsequent inventor.

Paragraph (f) indicates the necessity for the inventor as the party applying for patent. Subsequent sections permit certain persons to apply in place of the inventor under special circumstances.

Paragraph (g) is derived from title 35, U. S. C., 1946 ed., § 69 (R. S. 4920, amended (1) Mar. 3, 1897, ch. 391, § 2, 29 Stat. 692, (2) Aug. 5, 1939, ch. 450, § 1, 53 Stat. 1212), the second defense recited, in this section. This paragraph retains the present rules of law governing the determination of priority of invention.

Language relating specifically to designs is omitted for inclusion in subsequent sections.

[The period of one year specified in paragraph (b) is two years in the case of applications filed before August 5, 1940, see section 4d of the Act.

[As passed by the House, the word "on" in paragraph (d) was misprinted "or," this was corrected by the Senate.

[See section 4b of the Act for limitation of the effect of paragraph (d).]

See under section 101 for text of R. S. 4886.

R. S. 4887 (first paragraph). No person otherwise entitled thereto shall be debarred from receiving a patent for his invention or discovery, nor shall any patent be declared invalid by reason of its having been first patented or caused to be patented by the inventor or his legal representatives or assigns in a foreign country, unless the application for said foreign patent was filed more than twelve months, in cases within the provisions of section 4886 of the Revised Statutes, and six months in cases of designs, prior to the filing of the application in this country, in which case no patent shall be granted in this country.

R. S. 4923. Whenever it appears that a patentee, at the time of making his application for the patent, believed himself to be the original and first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been known or used in a foreign country, before his invention or discovery thereof, if it had not been patented or described in a printed publication.

§ 103. Conditions for patentability; non-obvious subject matter

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Section 103—New Section

There is no provision corresponding to the first sentence explicitly stated in the present statutes, but the refusal of patents by the Patent Office, and the holding of patents invalid by the courts, on the ground of lack of invention or lack of patentable novelty has been followed since at least as early as 1850. This paragraph is added with the view that an explicit statement in the statute may have some stabilizing effect, and also to serve as a basis for the addition at a later time of some criteria which may be worked out.

The second sentence states that patentability as to this requirement is not to be negatived by the manner in which the invention was made, that is, it is immaterial whether it resulted from long toil and experimentation or from a flash of genius.

* * *

§ 132. Notice of rejection; reexamination

Whenever, on examination, any claim for a patent is rejected, or any objection or requirement made, the Commissioner shall notify the applicant thereof, stating the reasons for such rejection, or objection or requirement, together with such information and references as may be useful in judging of the propriety of continuing the prosecution of his application; and if after receiving such notice, the applicant persists in his claim for a patent, with or without amendment, the application shall be reexamined. No amendment shall introduce new matter into the disclosure of the invention.

Section 132—Section Revised

Based on title 35, U. S. C., 1946 ed., § 51 (R. S. 4903, amended Aug. 5, 1939, ch. 452, § 1, 53 Stat. 1213).

The first paragraph of the corresponding section of existing statute is revised in language and amplified to incorporate present practice; the second paragraph of the existing statute is placed in section 135.

The last sentence relating to new matter is added but represents no departure from present practice.

R. S. 4903. Whenever, on examination, any claim for a patent is rejected, the Commissioner shall notify the applicant thereof, giving him briefly the reasons for such rejection, together with such information and references as may be useful in judging of the propriety of renewing his application or of altering his specification; and if after receiving such notice, the applicant persists in his claim for a patent, with or without altering his specification, the Commissioner shall order a reexamination of the case.

No amendment for the first time presenting or asserting a claim which is the same as, or for substantially the same subject matter as, a claim of an issued patent may be made in any application unless such amendment is filed within one year from the date on which said patent was granted.